

## Part B Application form

# Application to vary a permit for a Part B service station to add PVR Stage II

Local Authority Pollution Prevention and Control  
Pollution Prevention and Control Act, 1999  
Environmental Permitting (England and Wales) Regulations 2007

### Introduction

#### When to use this form

Use this form if you are applying for a variation to an existing service station permit in order to extend it to cover the operation of PVR Stage II.

A fee is only required to be enclosed if the variation involves a 'substantial change'. A substantial change is defined as "a change in operation which, in the opinion of the competent authority [the regulator] may have significant **negative** effects on human beings or the environment". (Closure of an existing service station and the building of a new replacement station at another location is likely to require a full fresh application, ie not constitute a variation.)

When complete, send the form and the fee and any additional information to:

#### If you need help and advice

We have made the application form as straightforward as possible, but please get in touch with us at the local authority address given above if you need any advice on how to set out the information we need.

Dave Bass  
Environmental Protection Officer  
Huntingdonshire District Council  
[dave.bass@huntingdonshire.gov.uk](mailto:dave.bass@huntingdonshire.gov.uk)  
(01480) 388363

LAPPC application form: to be completed by the operator		
For Local Authority use		
Application reference	Officer reference	Date received

**A1.1. Name of the premises**

**St Ives Connect**

**A1.2. Please give the address of the premises**

**Needingworth Road**

**St Ives**

**Huntingdon**

**Cambridgeshire**

**PE27 5WN**

Telephone.01480 468 060

**A1.3. Reference number of existing permit**

**P23/98**

**A2.1. The applicant** - Please provide the full name of company or corporate body or the name of the sole trader or the names of the partners

BP Oil UK Limited,(Express Shopping)

Licensing Department

3rd Floor Witan Gate House,

500-600 Witan Gate,

Milton Keynes,

MK9 1ES

Telephone:

01908 85 3380

Registered Office address

Chertsey Road,

Sunbury on Thames,

Middlesex,

TW16 7BP.

Registered in England and Wales, number 446915.

**A2.2. Holding companies**

Is the operator a subsidiary of a holding company within the meaning of section 1159 of the Companies Act 2006?

No

Yes

If yes? Name and address of ultimate holding company

BP P.L.C.  
1 ST JAMES'S SQUARE  
LONDON  
SW1Y 4PD

Company No. 00102498

### A3 Who can we contact about your application?

*It will help to have someone who we can contact directly with any questions about your application. The person you name should have the authority to act on behalf of the operator - This can be an agent or consultant.*

Name

Jan Martin-Read

Position

Licensing Co-ordinator

Address

BP Oil UK Limited,  
Licensing Department  
3rd Floor Witan Gate House,  
500-600 Witan Gate,  
Milton Keynes,  
MK9 1ES

Telephone:

01908 85 3380

Fax number

email address

Jan.Martin-Read@UK.BP.com

## B. About the installation

B1.1 Is PVR Stage II equipment already fitted:

**YES**

B1.2 If the answer to B1.1 is "no",

a) when do you intend to fit it **n/a**

b) what arrangements are in place (eg contract with installers) to fit it **N/A**

B2.1 What systems have been installed or is it intended to install to comply with PVR Stage II?

**BP Multiproduct dispensers as detailed in attachments.**

Doc Reference .....**Attachment 1.....( BP PVR II System Info).....**

B2.2 What is or will be the vapour/petrol ratio?

.....**95% – 105%**.....

B2.3 Please attach process diagrams and plans of VPR Stage II system, including pipework layout.

Doc Reference .....**Attachment 2...(A3 print of Site Fuel System Drawing)**

B2.4 What arrangements will be/have been made for preventative maintenance of the PVR Stage II equipment.

**BP manages maintenance of its company owned sites through centralised contracts. Maintenance is controlled through an on line ordering, despatch and recording system known as e-Maintenance (e-mtce) through which sites can access and track their maintenance needs.**

**e-Maintenance schedules and tracks works related to Stage 1b and Stage 2 VR equipment. A schedule of planned maintenance and testing is attached .**

**Test certificates are retained in the e-mtce system, accessible on site.**

**Equipment faults identified by sites are entered into e-mtce and tracked to close out in the system. Faults noted on record sheet ( Attachment 5), with e-mtce reference code, kept in PVR2 section of Site Register.**

**Doc Reference Attachment 3 (Maintenance Schedule for PVR Systems)**

B2.5 What arrangements will be/have been made to ensure relevant staff are adequately familiar with/trained in the use of the PVR Stage II equipment.

**Sites issued with descriptive leaflet (Stage II (PVR II) CO Site information) identifying system details and requirements for checking. PVR2 system checks and key characteristics incorporated in on line training modules**

Doc Reference .....**Attachment 4 (Stage II (PVR II) CO Site information)**

B2.6 Please attach procedures and contingency measures in the event of vapour containment equipment failure (including the system for vapour recovery during filling of vehicle petrol tanks).

**Equipment faults identified by sites through their daily and weekly check list systems are entered into e-mtce and tracked to close out in the system. Faults are manually noted on record sheet ( attached), with e-mtce reference code, kept in PVR2 section of Site Register.**

Doc Reference ...**Attachment 5 (Stage II (PVR II) Operating Record)**

B2.7 Please provide a certificate to confirm conformity of the PVR Stage II equipment with approval for use under the regulatory regimes of at least one European Union or European Free Trade Association country and to confirm that the hydrocarbon capture efficiency of the equipment is not less than 85% (ie that at least 85% of the displaced vapours are recovered, according to the relevant 'type approval' test (see Section 5.16 of PG1/14(06)), expressed as the ratio of the volume of hydrocarbon vapours displaced to the volume of petrol discharged).

Doc Reference ...**Attachment 6A (Wayne TUV Type Approval Certificate)**  
**Attachment 6B (Tokheim TUV Type Approval Certificate)**

B2.8 What arrangements will be put in place to test delivery systems and vapour recovery systems, including the testing of the vapour/petrol ratio? Please provide details of testing of the vapour containment integrity in accordance with the manufacturer's specifications (to be undertaken prior to commissioning and periodically at least once every 3 years thereafter and always following substantial changes or significant events that lead to the removal or replacement of any of the components required to ensure the integrity of the containment system).

**Annual tests scheduled in e mtce as identified in B2.4. Specific Procedure for Wayne equipment attached as reference. Tokheim similar .**

**Doc Reference ... ..Attachment 7 (Dresser Wayne Vapour Recovery – Test and Calibration)**

B2.9 Is an “automatic monitoring system” installed, or will it be installed, to automatically detect faults in the proper functioning of the petrol vapour recovery system including the automatic monitoring system; to indicate faults to the operator; and to automatically cut off the flow of fuel on the faulty delivery system if the fault is not rectified within 1 week?

Yes

## B3 Additional Information

Please supply any additional information, which you would like us to take account of in considering this application.

**Charging levels for LAPPC Part B permits are based on a standard Regulatory Effort Assessment. To assist with this assessment a commentary on BP's proposed route to low risk compliance with the particular issues noted has been prepared and is attached here for reference.**

Doc Reference: **Attachment 8 (LAPPC Compliance Effort Assessment)**

### C1. Fees and Charges

C1.1. Please enclose the relevant sum if this variation involves a substantial change, and state the amount enclosed.

£ [N/A](#)

Cheques should be made payable to: [N/A](#)

We will confirm receipt of this fee when we write to you acknowledging your application.

C1.2. Please give any company purchase order number or other reference you wish to be used in relation to this fee.

[N/A](#)

### C2. Annual charges

If we grant you a permit, you will be required to pay an annual subsistence charge. If you don't pay, your permit can be revoked and you will not be able to operate your installation.

C2.1. If different to details provided in relation to your current PVR Stage I permit, please provide details of the address you wish invoices to be sent to and details of someone we may contact about fees and charges.

[Jan Martin-Read](#)  
[Licensing Co-ordinator](#)  
[BP Oil UK Limited,](#)  
[Licensing Department](#)  
[3rd Floor Witan Gate House,](#)  
[500-600 Witan Gate,](#)  
[Milton Keynes,](#)  
[MK9 1ES](#)

Telephone:  
[01908 85 3380](#)

email address [Jan.Martin-Read@UK.BP.com](mailto:Jan.Martin-Read@UK.BP.com)

### C3. Commercial confidentiality

C3.1. Is there any information in the application that you wish to justify being kept from the public register on the grounds of commercial or industrial confidentiality?

No

If **Yes**, please provide full justification, considering the definition of commercial confidentiality within the EP Regulations (See the General Guidance Manual).

#### C4. Data Protection

The information you give will be used by the Local Authority to process your application. It will be placed on the relevant public register and used to monitor compliance with the permit conditions. We may also use and or disclose any of the information you give us in order to:

- consult with the public, public bodies and other organisations,
- carry out statistical analysis, research and development on environmental issues,
- provide public register information to enquirers,
- make sure you keep to the conditions of your permit and deal with any matters relating to your permit
- investigate possible breaches of environmental law and take any resulting action,
- prevent breaches of environmental law,
- offer you documents or services relating to environmental matters,
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows)
- assess customer service satisfaction and improve our service.

We may pass on the information to agents/ representatives who we ask to do any of these things on our behalf.

It is an offence under regulation 38 of the EP Regulations, for the purpose of obtaining a permit (for yourself or anyone else) to:

- make a false statement which you know to be false or misleading in a material particular,
- recklessly make a statement which is false or misleading in a material particular.

If you make a false statement

- we may prosecute you, and
- if you are convicted, you are liable to a fine or imprisonment (or both).

#### C5 Declaration: previous offences (delete whichever is inapplicable)

I/We certify

EITHER : No offences have been committed in the previous five years which are relevant to my/our competence to operate this installation in accordance with the EP Regulations.

~~OR :The following offences have been committed in the previous five years which may be relevant to my/our competence to operating this installation in accordance with the Regulations:~~



Signature .....

Name [Jan Martin-Read](#) Position [Licensing Co-ordinator](#)  
Date:

**6 Declaration**

**C6.1 Signature of current operator(s)\***

I/We certify that the information in this application is correct. I/We apply for a permit in respect of the particulars described in this application (including supporting documentation) I/We have supplied.

Please note that each individual operator must sign the declaration themselves, even if an agent is acting on their behalf. **See Attachment 9 BP Signing Authority**

For the application from:

Premises name ..... St Ives SF Connect



Signature .....

Name: [Jan Martin-Read](#) Position: [Licensing Co-ordinator](#)  
Date: 19th [November 2013](#)



Signature .....

Name: [Jan Martin-Read](#) Position: [Licensing Co-ordinator](#)  
Date:

*\* Where more than one person is defined as the operator, all should sign. Where a company or other body corporate – an authorised person should sign and provide evidence of authority from the board of the company or body corporate.*

# BP Petrol Vapour Recovery Stage II (PVR II) System Information



## Design Policy

BP has been fitting Petrol Vapour Recovery Stage II on all new sites built in the UK since January 2000.

BP has sites equipped with both Wayne and Tokheim Multiproduct pumps all built from new to incorporate Stage 2 Vapour Recovery

## Fault Monitoring

The correct functioning of the Stage 2 VR system in the dispenser is automatically monitored by the pump computer. Repeated fault codes generated by the vacuum pump or the proportional valve control systems of the dispenser are converted by the dispenser computer to a visual signal in the form of a continuous red LED located on the dispenser dial face. Fault LED's visible during routine regular checks of the dispensers by site staff will be recorded in the fault log and a maintenance call made.



Fig1, Wayne dial face with Fault LED  
Note: On Tokheim Dial Face LED is separate at the left hand end of the litres display

An illuminated LED can only be cancelled by an engineer intervention.

Functioning of the LED and the monitoring function is confirmed when a green (red on Tokheim) LED in the same location as shown above will blink once on completion of every petrol sale.

## The BP Stage 2 Vapour Recovery System

BP, in the UK, uses dispensers supplied by Dresser Wayne or Tokheim built in accordance with EN 13617. These dispensers are factory fitted with the required vapour recovery equipment.

The Stage 2 vapour recovery solutions used in the dispensers from these suppliers have been tested for compliance against vapour recovery test method VDI 4205 by TUV in Germany. These require average 85% efficiency of recovery over a specified range of vehicles with the vapour pumps controlled to a 95% - 105% vapour: liquid ratio.

Annual simulated flow tests by approved maintenance contractors ensure that the system remains in the 85% - 115% Vapour : Liquid ratio required in DEFRA PG1-14(06) and are adjusted as appropriate.

Dispensers are fitted with a fault indication system which is visible in the dial face area. Should there be a fault with the power to the vapour pump or with the valve control system the fault LED is illuminated and remains illuminated until the problem is rectified by a maintenance engineer. Site staff frequently check dispensers for proper operation of the VR system and maintain a fault log. Permit compliance, Maintenance services and the annual service check are managed and tracked centrally from BP's UK Retail Head Office at Witon Gate House, Milton Keynes.

All equipment for use in hazardous atmospheres is tested, certified and marked in accordance with the requirements set out under the ATEX 100 (Equipment) directive.



### Wayne Pignone

Dresser Wayne Pignone,  
Butlerfield Industrial Estate,  
Bonnyrigg,  
Midlothian,  
Scotland.  
EH19 3JQ  
Tel: +44(0)1875 402140

## Equipment Components

BP's petrol dispensers are fitted with:

- an Elaflex ZVA vapour recovery nozzle, slimline 21/8 coaxial hose, Swivel break coupling and splitter adaptor on each of the petrol supply hoses.
- Two piston vapour pumps, one for each side of the dispenser.

*In Wayne Equipment - Gardner Denver Thomas type 8014-5.0/6.0*

*In Tokheim Equipment - Duerr Technik MEX 0831-11*

- Two proportional control valves, one for each side of the dispenser which are electronically controlled to moderate the return flow in line with the fuel delivery flow rate.

*In Wayne equipment - Burkert 6022 / 2832*

*In Tokheim equipment - ASCO JV13285902-24v type EMXX*

- A Risbridger 1" double poppet shear valve.

Vapour is returned to the most appropriate underground petrol tank through a manifolded 2" vapour return pipe.

### Wayne Approval

certificate of approval issued by TUV Sudeutschland in Oct, 2002, updated Feb 2007.

Certificate Number TUV 85-2.127.1  
Max delivery rate of 38 litres per minute  
Max back pressure 150 mbar  
Air test correction factor 1.09

### Tokheim Approval

certificate of approval issued by TUV Sudeutschland in Aug 2007.

Certificate Number TUV 85 A/L 2.1:  
Max delivery rate of 40 litres per minute  
Max back pressure 50 mbar  
Air test correction factor 1.10



Tokheim,  
Unit 1 Baker Road  
West Pitkerro Industrial Estate  
Dundee  
Scotland  
DD5 3RT  
Tel: +44 (0) 1382 483500

If you have any questions with regard to the Design and Operation of BP's Vapour recovery systems please email:

Phil Lambeth, European Design Manager,  
BP Global Fuels Technology / Global Alliance  
[phil.lambeth@bp.com](mailto:phil.lambeth@bp.com)

Issued by: BP – Global Alliance  
July 2009, v 0  
BP PVR II System Info

**Global Alliance**

## BP Oil UK Ltd

### Maintenance Schedule for Petrol Vapour Recovery (PVR) Systems

Systems include all equipment pipework and processes required for :  
PVR Stage 1b - transfer of vapour displaced from the underground storage tanks during filling from the delivery road tanker from the vents to the road tanker.

PVR Stage 2: - collection of vapour displaced from vehicle tanks while being filled at petrol dispensers and transfer to the underground fuel storage tanks.

#### 1. Maintenance Contract

The maintenance contract is administered by BP Oil UK Ltd

Contact:                   The Fuels Maintenance Manager  
BP - Global Alliance  
Witan Gate House  
Central Milton Keynes  
MK9 1ES

Tel 01908 853616

#### 2. Site Particulars

- a. See site layout plans attached for an indication of principal components comprising:
  - i. Storage tanks, tank fill points and vapour connection, tank vents and vent manifold, fuel dispensers

#### 3. Maintenance Schedule

- a. Pressure /Vacuum/Orifice vent valve - located at top of petrol vents valve to be visually checked annually for correct and free operation, replace if defective. Check and clear flame arrestor gauze as needed, replace if defective, replace valve every 3 years.
  - i. Type fitted - Risbridger RIS-VENT with orifice or equivalent
- b. Vapour recovery adaptor ( for connection of the tanker vapour hose) to be checked for tightness when closed and for correct and free operation, report for replacement / corrective action if defective. check and clear flame arrestor cartridge (where fitted) .
  - i. Vapour adaptor type fitted - Risbridger Vapour Retainer ref 3416 or equivalent
- c. Check continuity of electrical bonding while progressing other checks ( visual only – annual electrical test will confirm proper earthing) report any defects
- d. Pipework – carry out annual tightness test of vapour containment system to include offset fills, vent pipes, vent manifold and vapour return pipes. Report any defects.
- e. Carry out visual check of dispenser external hoses, nozzles and associated fittings to confirm no damage which might potentially allow the loss of liquid or vapour. Report any defects for correction.
- f. Signage - confirm all appropriate signage is present and complete including tank contents labels identifying tank No., capacity and grade, vent labels identifying which tank they are connected to and all statutory safety signs at vents and fill points.

**4. Additional Items for Sites with Stage 2 Vapour recovery systems**

- a. Site staff confirm proper operation of Stage 2 VR system in pumps on a weekly basis in accordance with pump manufacturer's instructions. Defects identified are recorded and repaired within 7 days.
- b. Air/Liquid recovery ratio of dispenser checked in accordance with manufacturers instructions to be within prescribed limits on an annual basis. Correct as needed. Maintain records in site register.
- c. Pressure test to confirm tightness of the vapour return pipes every 3 years. Repair any leaks identified. Maintain a record on site of the checks and any corrective

**5. General**

- a. All contractors carrying out testing or other maintenance works must present their method statement and clearance certificate, incorporating a suitable risk assessment, to the site manager for sign of before commencing any work.
- b. Clearance certificates must be signed by the site manager / appropriate competent person on completion of works

# Petrol Vapour Recovery Stage II (PVR II) CO Site Information

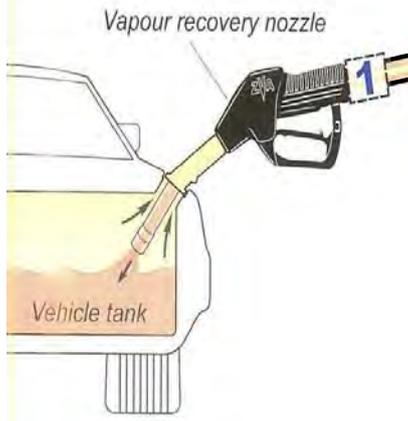
## The Technical Stuff

Pumps are fitted with  
 - a special nozzle (1), coaxial hose and splitter adaptor  
 - a vacuum vapour pump (3) for each sides of the dispenser  
 - an electronically controlled valve (2) in the pump which matches the vapour recovery flow rate to the fuel delivery flow rate

### Stage II of what ?

Petrol Vapour Recovery **Stage 1** was introduced in 2000 and required the collection of petrol vapour displaced during the loading and unloading of the Petrol Tanker. All sites in the UK are now fitted with PVR1.

*PVR II will collect the vapour displaced from car fuel tanks as they are filled on the forecourt*



### The Legal Bit

PVR II is regulated in England and Wales, Scotland and Northern Ireland under the regional versions of **The Pollution Prevention and Control Regulations, 2000**.

Your site requires a permit to operate Vapour Recovery Systems which is granted by your local councils Environmental Health Department and is renewed annually by the licensing coordinator in WGH. A copy of this permit and any specific conditions of the permit must be retained on site.

All sites selling more than 3.5 million litres of petrol a year must be fitted with Stage II Petrol Vapour recovery from 1st January 2010. All new sites built after that date (including major modifications), which will sell more than 0.5 million litres of petrol a year must also be fitted.

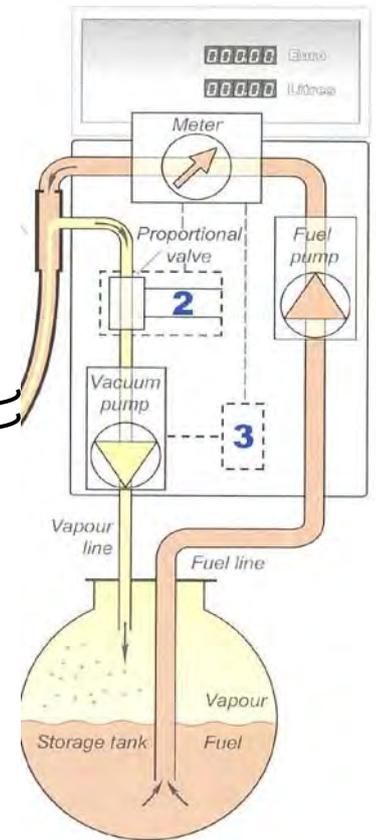
There is no UK certification but the performance of PVR II systems must be certified as achieving 85% efficiency to one or more of the existing standards in Germany, Sweden, France, Austria or the Netherlands.

Once installed operators must ensure the system is working properly and recovering vapour at a rate between 85% and 115% of the fuel flow rate. Regular weekly checks must be made to ensure the system is operating (see The **Red Light Area**) and annual flow tests will be carried out by maintenance to check the recovery efficiency. Any faults must be recorded in a log maintained on site.

**ATEX 137 Worker Protection Directive (HSAW)**  
 The employer / owner of the site is responsible for ensuring that explosion risks have been assessed and that equipment is correctly designed, operated and maintained.

All equipment for use in hazardous atmospheres must be tested, certified and marked in accordance with the requirements set out under the **ATEX 100 (Equipment)** directives.

BP has been operating Stage 2 on many sites in the UK since early in 2000. We also have extensive experience of operating vapour recovery systems in many countries in Europe. If you need further information please get in touch with the maintenance centre in Witan Gate House



*There is also a vapour pipe connecting the pump back to one of the petrol tanks. Vapour lines from all pumps are connected to a single connection. A safety break valve at the pump base prevents vapour escape if the pump is knocked over.*

### The Red Light Area

**Site staff need to check dispenser displays at least once every week to confirm the correct functioning of the Stage 2 VR system.** If a fault occurs with the vapour pump or the control valves the dispenser displays an illuminated red LED located on the dispenser dial face.



If you see this red light log it against pump no and date and report the fault to the maintenance centre in the usual way.

If corrective action has not been completed within 7 days of the fault been present, then the pump will automatically shut down.

An illuminated LED can only be cancelled by an engineer intervention.

### WHY ?

Petrol vapour which escapes into the atmosphere is directly connected to an increase in ground level Ozone, a major pollutant which causes breathing disorders and other health problems in humans and is poisonous to plants. Petrol Vapour Recovery Stage II in the UK will prevent the release of 30,000 tonnes of vapour into the atmosphere which will achieve significant reductions in ground level ozone.

Issued by: BP Oil UK Ltd  
 April 2009  
 PVR II CO Information v0



# BP Petrol Vapour Recovery Stage II (PVR II) Operating Record



## Checking Equipment Reporting Faults

You must check pumps daily to ensure safety and cleanliness. This is completed as part of your 'Store Check'. On a daily basis, the pumps are to be checked for:

- Damage to panels
- Damage to Nozzles and couplings
- Damage and wear to Hoses

Any damage found should be reported through *e-maintenance*. If the damage affects the safety of the pump it should be taken out of action pending repair by an approved maintainer.

Stage2 monitoring adds an additional check to this daily routine. If a red light is visible at the lower corner of the volume display window it must be reported as a Stage2 VR fault for that particular pump through *e-maintenance* and the incidence logged in the form below and retained as part of the Petroleum Register in section 6. Your PO or any other regulator representing the Environment Agency may ask to see these records.

Periodically check that the light is working by observing transaction completion. The light will flash once as the nozzle is replaced. If it doesn't report as a fault through E-Maintenance.

## Automatic Monitoring

The correct functioning of the Stage 2 VR system in the dispenser is automatically monitored by the pump computer. Repeated fault codes generated by the vacuum pump and the proportional valve control systems of the dispenser are converted by the dispenser computer to a visual signal in the form of a continuous red LED located on the dispenser dial face. Fault LED's will be easily identified during routine periodic checks of the dispensers by site staff who will record the fault and log a maintenance call.



The illuminated LED can only be cancelled by an engineer intervention.

Functioning of the LED is confirmed in the end of every sale when the nozzle is replaced the LED will blink once.

## BP Petrol Pump



## Stage 2 Vapour Recovery Fault Record Form

<i>Pump No.</i>	<i>Date Fault noted</i>	<i>initial</i>	<i>E-Maintenance Job Ref.</i>

Make a copy of the rear of this form as a continuation

**Further information:** *contact your Retail Territory Manager or*

Maintenance Centre Help Desk: 0800 nnn nnn  
 BP help desk : 01927 85 xxxx  
 Store Support team 01927 85 nnnn

Issued by: BP – Global Alliance  
 January 2008  
 PVR II Site Ops Record v0

**GlobalAlliance**



## Certificate No. 85-2.127



The Certification Body for Fuel-Vapor Recovery Systems of TÜV Süddeutschland, Tank Systems Competence Center, Westendstr. 199, D-80686 Munich, hereby certifies testing of the following fuel-vapor recovery system in line with the code of practice:

**"System testing for active fuel-vapor recovery systems and their monitoring systems in Germany (Code of Practice I)" of June 17, 2002 :**

- Nozzle: **ELAFLEX ZVA 200 GR**
- Hose: **ELAFLEX Conti Slimline 21/8 Coax**
- Control valve: **Bürkert, 6022 / 2832,**  
with electronic control: Bürkert
- Vapor recovery pump: **ASF Thomas, Type 8014-5.0**

The following general requirements must be observed in installation:

- maximum volumetric fuel-flow rate: **38 l/min**
- maximum counter pressure in fuel-vapor recovery line: **150 mbar**
- coefficient of correction for system adjustment with air: **1,09**

The required minimum efficiency ratio of 85% was demonstrated.

The fuel-vapor recovery system is in line with the state of the art as defined in the 21. BImSchV<sup>1</sup> (Regulation governing the limitation of hydrocarbon emissions during motor-vehicle refueling) of October 7, 1992, last amended on May 6, 2002.

Munich, October 23, 2002



Officially Authorized Expert

*Peter Szalata*

Peter Szalata

<sup>1</sup> Air Pollution Control Regulation

CERTIFICAT

CERTIFICADO

‘ΕΡΤΗΓΓΙΤΑΤΗ

認証証書

CERTIFICATE

ZERTIFIKAT

BP LAPPK PART B PERMIT  
ATTACHMENT 6B



Industrie Service

Certificate No. 85 A/L-2.1

The TÜV SÜD Test Body for Vapor Recovery Systems,  
Westendstr. 199, D-80686 Munich, certifies having conducted tests according the following code:  
"Measurement and test methods for the assessment of vapour recovery systems  
on filling stations- VDI 4205"  
on the following vapor recovery system:

Fuel-hose nozzle:	<b>ELAFLEX ZVA 200 GRV 3</b>
Hose:	<b>ELAFLEX Conti Slimline 21/8 Coax</b>
A / L regulator valve <sup>1</sup> :	<b>ASCO, Model JV13285902.24/DC, Type EMXX</b> with Control board: „Tokheim SAS“ Typ ECVR - OL
Vapor valve <sup>2</sup> :	Not required –if internal in fuel-hose nozzle
Vapor recovery pump:	<b>Dürr, MEX 0831-11</b>

Test results:

A/L **99,4 %** at volumetric fuel-flow rate 40 l/min

Average<sup>3</sup> efficiency **95,4 %**

The following general conditions must be observed during installation:

Maximum volumetric fuel-flow rate: **40 l/min**  
Maximum counter pressure in recovery line: **50 mbar**  
Correction coefficient for system settings with air: **1,10**

Germany  
Munich, 20.08.2007



The officially authorized expert

*Peter Szalata*

Peter Szalata

<sup>1</sup> regulates air to liquid ratio

<sup>2</sup> opens the vapour path during liquid flow

<sup>3</sup> According to VDI 4205 in normal position and 45° position using VW Polo as reference car under realistic fuelling conditions.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ CERTIFICAT

**DRESSER**

**Wayne**

# Vapour recovery

Bürkert Vapour recovery  
and Wayne iGEM

## Test and Calibration



**For internal use only**

**Endast internt bruk**

**Только для внутреннего пользования**



### Product Liability

For the supplier's product liability to be valid, no alterations, additions or the like may be made to the equipment without the supplier's express permission.

Use only genuine parts



### Produktansvar

För att en leverantörs produktansvar skall gälla får ändringar, kompletteringar och liknande ej göras i utrustningen utan leverantörens godkännande.

Originalreservdelar skall alltid användas.



### Produkthaftung

Damit die Produkthaftung des Lieferanten ihre Gültigkeit behält, dürfen ohne ausdrückliche Genehmigung des Lieferanten keine Änderungen, Ergänzungen o. Ä. an der Ausrüstung vorgenommen werden. Verwenden Sie nur Originalteile.



### Ответственность поставщика

Для сохранения ответственности нельзя вводить в оборудование изменения, дополнения и т.п. без разрешения поставщика. Пользуйтесь только оригинальными запасными частями, выпущенным изготовителем бензопилки.

### Caution

To prevent damage that might result in electric shock or fire, disconnect the main power prior to any work.

### Varning

Gör pumpen/enheten strömlös innan Du gör ingrepp i den. I annat fall föreligger risk för skada.

### Vorsicht

Um Beschädigungen zu vermeiden, die zu einem elektrischen Schlag oder Feuer führen können, unterbrechen Sie vor jeder Arbeit die Stromzufuhr.

### Осторожно

Во избежание поражения электрическим током или пожара отключайте напряжение питания перед началом любых работ.

### Warning

Never run a leaking pump! Be careful with the environment and mind the skidding risk, take care of leaking fuel immediately.

### Varning

Använd aldrig en läckande pump. Tänk på miljön och halkrisken, sanera utläckt drivmedel snarast.

### Warnung

Lassen Sie nie eine undichte Zapfsäule laufen! Seien Sie umweltbewusst und denken Sie an die Rutschgefahr; beseitigen Sie austretenden Kraftstoff umgehend.

### Предупреждение

Не пользуйтесь бензопилкой при наличии утечки! Охраняйте окружающую среду, помните об опасности скольжения в случае утечки топлива и примите меры немедленно.

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# 1 Test of vapour recovery

The following instructions must be used when verifying the vapour recovery system on pumps equipped with iGEM.

## Test

1. Enter function F34.03 (side A) or F34.04 (side B)
2. Lift the nozzle you want to test. You can read the simulated flow on the display. (default 25 litres/minute)
3. Mount the Elaflex FLOTESTER. (Wayne Malmö number 452442) on the nozzle.
4. Hold the nozzle in vertical position as described in figure.
5. Set flow, using remote control (up or down), to 20 litres/minute.
6. Wait until flow displayed on Elaflex FLOTESTER is stable then verify that flow is **>20.7** and **<22.9 litres/minute**
7. Set flow, using remote control (up or down), to 38 litres/minute.
8. Wait until flow displayed on Elaflex FLOTESTER is stable then verify that flow is **>39.3** and **<43.4 litres/minute**
9. Dismount the Elaflex FLOTESTER.



If values are out of range, calibrate the vapour recovery system.



## **2 Manual adjustment of Bürkert Vapour recovery with Wayne iGEM pumps:**

1. Enter function F26.01, and set parameter to 1.
2. Enter function F40 using the remote control.
3. Sub function F40.01: Lift nozzle (Nozzle no. and side is indicated on sales display). Then press ENTER.
4. Mount Elaflex FLOTESTER in nozzle to be calibrated.
5. Place nozzle in vertical position as described in picture.
5. Sub function F40.02: Proper VAP motor is started to be heated. A counter is decrementing from 60 to 0. By pressing NEXT on remote control, user can skip heating if motor is already warm.
6. Sub function F40.03: A fuel flow of 10 litres/min is simulated. Enter flow indicated on flowmeter as decilitres/min (e g 120 for 12 litres/min) using the remote control. Press “#” then enter digits and press ENTER.
7. Sub function 40.04: A fuel flow of 35 litres/min is simulated. Enter flow indicated on flow meter as decilitres/min (e g 360 for 36 litres/min) using the remote control. Press “#” then enter digits and press ENTER.
8. Display is now indicating “cALibr, donE” which mean that calibration is finished for that nozzle.
9. Return nozzle and exit F40.



Steps 1 to 9 are repeated for each nozzle.

When finished, exit maintenance mode and save changes, F00=3.



## 4 Market & Service

### Sweden

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**DRESSER****Wayne**

## More than a century of experience Über 100 Jahre Erfahrung Mer än 100 års erfarenhet Более, чем столетний опыт работы



Wayne Dresser develops, manufactures and markets complete operative systems for fuel handling at service stations. Everything from development and design to efficient production and assembly of components is pursued under one roof.

Wayne Dresser entwickelt, produziert und vermarktet komplette funktionierende Systeme für die Abgabe von Kraftstoffen an Tankstellen. Von der Entwicklung über das Design bis zur Herstellung und Installation liefern wir alles aus einer Hand.

Wayne Dresser utvecklar, tillverkar och marknadsför kompletta operativa system för drivmedelshantering på servicestationer. Under ett och samma tak ryms allt från utveckling och konstruktion till rationell tillverkning och sammansättning av komponenter.

Wayne Dresser разработывает, производит и продает совершенные оперативные системы для торговли топливом на станциях обслуживания. Все начиная от разработок и конструкции до эффективного производства и сборки компонентов происходит в пределах одного предприятия.

### The operations of Wayne Dresser comprise four interacting parts:

- Equipment such as petrol pumps, payment terminals, point-of-sale terminals and service station operative systems.
- Software for recording and for internal communication at the station, as well as between the station and the oil company, banks and credit institutes.
- Project design with overall responsibility to the customer.
- Field service, technical support and supply of spare parts.

Wayne Dresser makes it easier for the motorist to fill up and make his motoring purchases, while effectively meeting the needs of the service station owner for operating supervision and for conforming to the demands of the authorities on measuring accuracy, minimising pollution and ensuring safety.

### Die Niederlassungen von Wayne Dresser umfassen vier ineinander greifende Bereiche:

- Ausrichtungen wie Zapfsäulen, Zahlterminals, Kassenterminals und Tankstellensysteme
- Software für Registrierung und Kommunikation auf der Tankstelle u. zwischen Station und Mineralölfirma sowie Banken und Kreditinstituten.
- Projektgestaltung mit umfassender Verantwortlichkeit dem Kunden gegenüber.
- Service, technische Unterstützung und Lieferung von Ersatzteilen.

Wayne Dresser erleichtert dem Fahrer die Betankung und damit verbundene Einkäufe, unterstützt gleichzeitig den Stationär bei der übersichtlichen Führung seines Betriebes unter Berücksichtigung der behördlichen Vorschriften hinsichtlich Messgenauigkeit, Umwelt- und Sicherheitsauflagen.

### Verksamheten omfattar fyra samverkande delar:

- Utrustning som bensinpumpar, betalterminaler, butiksterminaler och stationsdatorer.
- Programvara för registrering och kommunikation internt på stationen samt mellan stationen och oljebolaget, banker och kreditinstitut.
- Projektning med totalansvar gentemot uppdragsgivaren.
- Service på fältet, teknisk support och reservdelsförsörjning.

Wayne Dresser gör det lättare för bilisten att tanka och handla. Samtidigt tillgodoses stationsägens krav på en effektiv driftskontroll och myndighetskraven på mät noggrannhet, miljövänlighet och driftssäkerhet.

### Действия Wayne Dresser включают четыре взаимосвязанных направления:

- Оборудование, например, топливораздаточные колонки, платежные терминалы, терминалы точек продаж и системы управления АЗС.
- Программное обеспечение для регистрации и для внутренней связи на АЗС, а также между АЗС и нефтяной компанией, банками и кредитными учреждениями.
- Проектирование с полной ответственностью к клиенту.
- Обслуживание на местах, техническая поддержка и поставка запасных частей.

Wayne Dresser упрощает процесс заправки и приобретения покупок при эффективном согласовании потребностей владельца АЗС для оперативного управления и для соблюдения требований государственных и метрологических служб, а также уменьшения загрязнения окружающей среды и обеспечения безопасности.

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**Local Authority “Compliance Effort Assessment” PPC regs**

1. Compliance Assessment	Possible Score	Score	BP Compliance Note
a. Incident leading to justified complaint but no breach of permit	0		
b. incident leading to justified complaint	5 per incident		
c. Breach of Authorisation not leading to formal Action	10 per incident		
d. Incident leading to formal Caution, enforcement notice or prosecution	15 per incident		
e. Incident leading to prohibition notice	20 per incident		
Total			
			Should have no breaches of the permit

2. Assessment of Monitoring , Maintenance and Records	Possible Score Y / N / na	Score	BP Compliance Note
a. All monitoring undertaken to the degree required in the permit	0 – 10 - 0		<b>Yes</b> – no specific requirement in permit to record actual emissions details. Equipment downtime which will result in unplanned release is identifiable in maintenance systems
b. Process operation modified where any problems indicated by monitoring	0 – 5 - 0		<b>N/A</b> as no monitoring
c. Documented and adhered to Maintenance programme, in line with permit – Provide written mtce programme for pollution control to regulator	0 – 5 - 0		<b>Yes</b> – Checks on site VR2 equipment included in Daily and Weekly site check lists for site staff. Major maintenance and operational checks procedures as provided to regulator in permit application
d. Documented records as required in permit available on site – log book at premises incorporating details of Mtce, examination and testing, inventory checking, installation and repair work carried out	0 – 5 - 0		<b>Yes</b> - Mtce record kept centrally and available on site through e- maintenance on line system
e. all relevant documents forwarded to the authority by the date required	-5 / 10 / 0		<b>Yes</b> – to allow for permit for Stage 2 VR to be in place 1-Jan 2010
Total			

3. Assessment of Management and training responsibility	Possible Score Y / N / na	Score	BP Compliance Note
a. Documented procedures in place for implementing all aspects of the permit – are procedures in place to ensure proper management, supervision and training for process operations, proper use of equipment, and affective preventative mtce on all plant and equipment concerned with emissions to air	0 – 5 - 0		<b>Yes</b> – permit documentation, staff advice, system description, check records Note for Stage 2 will be in place as required 1 – Jan 2010
b. Specific responsibilities assigned to individual members of staff for these procedures – are staff trained to be aware of their responsibilities under the permit	0 – 5 - 0		<b>Yes</b> – Management of the site and equipment on the site related to Stage 1b and Stage2 vapour recovery forms part of the general Responsibilities of staff related to the storage and sale of petrol and is incorporated in the overall competent person training they are required to complete. Specific additional reference material is provided in relation to Stage 2 pvr in the form of an information sheet ( copy provided with permit application) Repeat tasks are identified in daily / weekly check list
c. Completion of individual responsibilities checked and recorded by the company – Does the operator maintain and make avaiable a statement of training requirements for each operational post	0 – 5 - 0		<b>Yes</b> – Daily / Weekly Site check list records retained
d. documented training records for all staff with air pollution control responsibilities – Does the operator keep and make available a record of the training received by each person whose actions may have an impact on the environment	0 – 5 - 0		<b>Yes</b> - forms part of the general training records as noted above
e. trained staff on site throughout periods where potentially air polluting activities take place – Is there a cometent trained person who remains near the tanker during unloading	0 – 5 - 0		<b>Yes</b> – truck driver responsible for delivery under ACoP L133
f. is an appropriate environmental management system in place	-5 – 0 - 0		N/A
Total			
